

STATEMENT OF THE CLAIMS

1. - 36. (canceled)

37. (currently amended) A fixation plate for use on a long bone having a longitudinal axis, said plate for use with a plurality of fixation pegs having threaded heads and a K-wire, comprising:

a substantially rigid plate having a shaft defining a longitudinal axis of said plate which extends in a proximal-distal direction oriented substantially parallel to said longitudinal axis of said bone, and a head portion angled relative to said shaft, said head portion defining a first set of peg holes each structurally adapted to engage the threaded head of one of the fixation pegs and at least one non-threaded first alignment hole, each of said peg holes having a first diameter, and said at least one first alignment hole having a second relatively smaller diameter than said first diameter sized to closely receive the K-wire in a predetermined fixed axial orientation which is oblique relative to a bone contacting surface of said plate, each at least one first alignment hole being located between two immediately adjacent peg holes that are aligned in a medial-lateral direction transverse to said proximal-distal direction, and each at least one first alignment hole being located entirely within a boundary defined by ~~a tangent to a proximalmost point on a circumference of said two immediately adjacent peg holes, a tangent to a distalmost point on a circumference of said two immediately adjacent peg holes~~ a line joining a proximalmost point on a circumference of each of said two immediately adjacent peg holes, a line joining a distalmost point on a circumference of each of said two immediately adjacent peg holes, a tangent to a lateralmost point on a circumference of a

medialmost of said two immediately adjacent peg holes, and a tangent to a medialmost point on a circumference of a lateralmost of said two immediately adjacent peg holes.

38. (previously presented) A fixation plate according to claim 37, wherein:

said at least one first alignment hole defining a tangent line which is substantially coincident with a line tangent to said first set of peg holes.

39. (canceled)

40. (currently amended) A fixation plate according to claim 37, wherein:

said head portion has a lower surface, and said lower surface non-planar.

41. (currently amended) A fixation plate according to claim 37, wherein:

said head portion includes medial and lateral sides, and said medial side extends distally relative to said lateral side.

42. (currently amended) A fixation plate according to claim 37, wherein:

said head portion includes a second set of peg holes having means to engage fixation pegs with threaded heads, said first set being linearly arranged, said second set being linearly arranged, and said second set being longitudinally offset relative to said first set.

43. (currently amended) A fixation plate according to claim 42, wherein:

said head portion includes a distal non-threaded alignment hole between two pegs holes of said second set of peg holes.

44. (canceled)

45. (currently amended) A fixation plate according to claim 37, wherein:

said head portion and body together generally form a T-shaped plate configuration, and said head includes a lower surface, a lateral side, a medial side and a central portion, and said lower surface at said lateral and medial sides is directed upward relative to said lower surface at said central portion.

46. (previously presented) A fixation plate according to claim 37, wherein:

each of said peg holes is structurally adapted to engage a fixation peg by including an internal thread.

47. (previously presented) A fixation plate according to claim 37, wherein:

for n peg holes in said first set, a substantially linear arrangement of n-1 first alignment holes is provided, said peg holes and said first alignment holes provided in an alternating arrangement.

48. (currently amended) A fixation plate for use on a long bone having a longitudinal axis, said plate for use with a plurality of fixation pegs with threaded heads and a K-wire, comprising:

a substantially rigid plate having an elongate body defining a longitudinal axis extending in a proximal-distal direction oriented substantially parallel to said longitudinal axis of said bone and a head oriented transverse to said body and angled ~~in a Z-direction relative to~~ upward with respect to a plane containing said body,

said head defining a first set of longitudinally displaced peg holes each structurally adapted to engage the threaded head of one of the fixation pegs, and a first non-threaded alignment hole substantially smaller in diameter than said peg holes and located between two immediately adjacent peg holes of said first set of peg holes, said adjacent peg holes aligned in a medial-lateral direction transverse to said proximal-distal direction, said first non-threaded alignment hole being located entirely within a boundary defined by ~~a tangent to a proximalmost point on a circumference of said two immediately adjacent peg holes, a tangent to a distalmost point on a circumference of said two immediately adjacent peg holes~~ a line joining a proximalmost point on a circumference of each of said two immediately adjacent peg holes, a line joining a distalmost point on a circumference of each of said two immediately adjacent peg holes, a tangent to a lateralmost point on a circumference of a medialmost of said two immediately adjacent peg holes, and a tangent to a medialmost point on a circumference of a lateralmost of said two immediately adjacent peg holes of said first set of peg holes, said first non-threaded alignment hole sized to closely receive the K-wire in a predetermined fixed axial orientation which is oblique relative to a bone contacting surface of said plate, and

said body defining a shaft having a plurality of screw holes and a second non-threaded alignment hole longitudinally displaced relative to two of said plurality of screw holes, said second non-threaded alignment hole sized to closely receive the K-wire in a

predetermined fixed axial orientation which is oblique relative to a bone contacting surface of said plate.

49. (previously presented) A fixation plate according to claim 48, wherein:

said head defines a second set of peg holes each structurally adapted to engage the threaded head of one of the fixation pegs, wherein said first set is arranged substantially along a first line, and said second set is arranged substantially along a second line, and said first and second lines are longitudinally displaced relative to each other, said head further including a third non-threaded alignment hole substantially smaller in diameter than each of said second set of peg holes and laterally displaced between two peg holes of said second set of peg holes, said third non-threaded alignment hole sized to closely receive the K-wire in a predetermined axial orientation which is oblique relative to said bone contacting surface of said plate.

50. (previously presented) A fixation plate according to claim 49, wherein:

said first set of peg holes and said first alignment hole are all obliquely orientated in at least one dimension relative to each other.

51. (previously presented) A fixation plate according to claim 48, wherein:

said first set of peg holes and said first alignment hole are all obliquely orientated in two dimensions relative to each other.

52. (previously presented) A fixation plate according to claim 48, wherein:

said first alignment hole has an upper circular opening and a lower laterally oblong opening.

53. (previously presented) A fixation plate according to claim 48, wherein:

said first alignment hole defines a tangent line which is substantially coincident with a line tangent to one of said threaded peg holes.

54. (previously presented) A fixation plate according to claim 48, wherein:

said head defines a distal taper.

55. (previously presented) A fixation plate according to claim 48, wherein:

said plate includes a third alignment hole, and first alignment hole and third alignment hole are longitudinally displaced along said head.

56. – 57. (canceled)

58. (previously presented) A fixation plate according to claim 48, wherein:

a longitudinal axis through said plate extends through said first non-threaded alignment hole.

59. (currently amended) A fixation plate for use with a plurality of fixation pegs having threaded heads and a K-wire, comprising:

a substantially rigid plate having an elongate body and a head, with said head angled upward relative to a plane containing ~~in a Z-direction relative to~~ said body, said head of said plate defining,

a first set of at least three peg holes which are obliquely oriented relative to each other and substantially arranged along a first line and a second set of peg holes substantially arranged along a second line, said first and second lines being longitudinally displaced, said peg holes each structurally adapted to engage the threaded head of one of the fixation pegs, wherein said peg holes of said first set laterally alternate with said peg holes of said second set, and

a non-threaded alignment hole having a substantially smaller diameter than any of said peg holes and sized to closely receive the K-wire, said non-threaded alignment hole sized to closely receive the K-wire in a predetermined fixed axial orientation which is oblique relative to a bone contacting surface of said plate and to said first set of peg holes, said non-threaded alignment hole located within the proximal-distal and medial-lateral boundaries defined between the edges of two adjacent peg holes of said first set of peg holes.

60. (canceled)

61. (previously presented) A fixation plate according to claim 59, wherein:

said alignment hole is laterally located between two peg holes of said first set of peg holes.

62. – 64. (canceled)

65. (currently amended) A system for fracture fixation of the distal radius, comprising:

a) a plate for use on a long bone having a longitudinal axis, said plate having an elongate body portion defining a longitudinal axis extending in a proximal-distal direction oriented substantially parallel to said longitudinal axis of said bone, and a head portion angled relative to said body portion, said body portion defining at least one screw hole, and said head portion defining a plurality of peg holes each structurally adapted to engage a fixation peg with a threaded head and a plurality of substantially smaller non-threaded alignment holes, each non-threaded alignment hole located between two immediately adjacent peg holes that are aligned in a medial-lateral direction transverse to said proximal-distal direction, and each alignment hole being located entirely within a boundary defined by ~~a tangent to a proximalmost point on a circumference of said two immediately adjacent peg holes, a tangent to a distalmost point on a circumference of said two immediately adjacent peg holes~~ a line joining a proximalmost point on a circumference of each of said two immediately adjacent peg holes, a line joining a distalmost point on a circumference of each of said two immediately adjacent peg holes, a tangent to a lateralmost point on a circumference of a medialmost of said two immediately adjacent peg holes, and a tangent to a medialmost point on a circumference of a lateralmost of said two immediately adjacent peg holes, said alignment holes sized to closely receive a K-wire in a predetermined fixed axial orientations, at least one of said alignment holes having an axis which is oblique relative to a bone contacting surface of said plate;

b) at least one screw sized for insertion into said at least one screw hole;

- c) a plurality of pegs each having a threaded head and a shaft, said pegs sized for insertion into said peg holes; and
- d) a plurality of K-wires, wherein said alignment holes are sized to closely receive said K-wires.

66. (previously presented) A system according to claim 65, wherein:

said head portion of said plate includes stabilization means to prevent said head portion from rocking on the distal radius prior to mechanically coupling said head portion to the bone.

67. (previously presented) A system according to claim 65, wherein:

said plurality of pegs includes at least one peg with a threaded shaft and at least one peg with a non-threaded shaft.

68. (previously presented) A system according to claim 65, wherein:

said at least one alignment hole is situated between two adjacent peg holes.

69. (currently amended) A system according to claim 66, wherein:

said stabilization means includes a non-planar bone contacting surface on said ~~second~~ head portion.

70. – 83. (canceled)